## HHI FOR THE TOP 50 MSAs BASED ON NUMBER OF SUBSCRIBERS

MSA		Non-Wireline Operator			Wireline Operator			
Rank	MSA Name	Name	Subscribers	Market Share (percent)	Name	Subscribers	Market Share (percent)	HHI
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	New York	LIN	445,437	57.9	NYNEX	323,918	42.1	5,125
2	Los Angeles	BellSouth	540,154	<b>63</b> .0	PacTel	317,650	37.0	5,336
3	Chicago	Southwestern	351,527	61.7	Ameritech	217,991	38.3	5,275
4	Philadelphia Philadelphia	Comcast	105,742	50.8	Bell Atlantic	102,546	49.2	5,001
5	Detroit	PacTel/CCI	<b>6</b> 4,780	31.2	Ameritech	143,043	68.8	5,709
6	Dallas	LIN	124,437	<b>4</b> 1.8	Southwestern	173,320	<b>58</b> .2	<b>5</b> ,135
7	Boston	Southwestern	192,070	<del>6</del> 9.2	NYNEX	85,511	30.8	5,737
8	Washington	Southwestern	182,374	<b>68</b> .5	Bell Atlantic	83,708	31.5	5,688
9	San Francisco	McCaw (PacTel)	<b>98,6</b> 67	52.9	GTE	87,812	47.1	5,017
10	Houston	LIN	128,778	<b>5</b> 9.7	GTE	86,826	40.3	5,189
11	Miami	McCaw Cellular	103,509	43.1	BellSouth	136,600	56.9	5,095
12	Atlanta	PacTel	63,453	34.8	BellSouth	118,642	65.2	5,459
13	San Diego	US West	67,284	53.6	PacTel	58,177	46.4	5,026
14	Minn/St. Paul	McCaw Cellular	78,174	55.7	US West	62,281	44.3	5,064
15	St. Louis	Ameritech	73,467	<b>38</b> .9	Southwestern	115,273	61.1	5,245
16	Baltimore	Southwestern	114,301	<b>69</b> .5	Bell Atlantic	50,045	30.5	5,764
17	Phoenix	Bell Atlantic	47,288	45.2	US West	57,378	54.8	5,046
18	Seattle/Everett	McCaw Cellular	64,634	<b>56</b> .3	US West	50,206	43.7	5,079
19	Pittsburgh	McCaw Cellular	46,796	50.7	Bell Atlantic	45,592	49.3	5,001
20	Tampa	McCaw Cellular	64,099	<b>5</b> 6.7	GTE	49,032	43.3	5,089
21	Denver	McCaw Cellular	59,878	55.1	US West	48,878	44.9	5,051
22	S.Juan/Caguas	Cell Comm PR	22,760	<b>50</b> .0	PR Tele	22,760	50.0	5,000
23	Cleveland	PacTel/CCI	31,052	41.3	GTE	44,074	<b>58.7</b>	5,150
24	San Jose	McCaw (PacTel)	40,381	52.9	GTE/Contel	35,938	47.1	5,017
25	Kansas City	McCaw (PacTel)	39,175	37.9	Southwestern	64,244	62.1	5,294
26	Cincinnati	PacTel/CCI	24,688	43.5	Ameritech	32,131	56.5	5,086
27	Portland	McCaw Cellular	45,763	56.9	GTE	34,712	43.1	5,094
28	Milwaukee	BellSouth	59,638	61.1	Ameritech	37,915	38.9	5,248
29	Sacramento	McCaw Cellular	44,645	<b>64</b> .5	PacTel	24,555	35.5	5,421
30	San Antonio	McCaw Cellular	42,188	43.4	Southwestern	55,058	56.6	5,088
31	Indianapolis	BellSouth	52,684	62.2	GTE	31,993	37.8	5,299
32	Columbus	PacTel/CCI	20,983	43.4	Ameritech	27,310	56.6	5,086
33	Orlando Buffalo	McCaw Cellular	36,722	44.5	BellSouth	45,860	55.5	5,061
34		Associated	18,022	45.7	NYN/ R Tel	21,392	54.3	5,037
35 36	New Orleans	RadioFone	13,997	22.7	BellSouth	47,661	77.3	6,490
37	Salt Lake City Hartford	McCaw Cellular Bell Atlantic	35,362	55.1	US West	28,866	44.9 39.3	5,051
37 38	Nash./Davidson	Contel	23,758	60.7 47.0	SO NE Tel BellSouth	15,373	39.3 53.0	5,230
39	Nesn./Davidson Norfolk	Sprint	24,460	47.0 52.8		27,5 <del>94</del>	53.0 47.2	5,018
40	Rochester		26,997 0.552		Contel	24,165		5,015
41	Memphis	Associated Contel	9,552	33.9 41.3	NYN/ R Tel	18,651	66.1 58.7	5,520
42	Jacksonville	McCaw Cellular	23,900 30,220	41.3 44.6	BellSouth BellSouth	33,952 37,404	55.4	5,151 5.058
43	Oklahoma City	McCaw Cellular	<b>29</b> ,703	47.6	Southwestern	37,494 32,672	55.4 52.4	5,058
44	Greensboro	GTE	29,703 22,128	49.7	Sprint	32,672 22,427	52.4 50.3	5,000
45	West Palm Beach	McCaw Cellular	30.218	43.1	BellSouth	39.878	50.3 56.9	5,000
46	Prov./Warwick	Bell Atlantic	19.167	49.6	NYNEX	19,490	50.9 50.4	5,095
47	Louisville	Contel	21,442	<b>36</b> .7	BellSouth	36,992	63.3	5,000
48	Birmingham	Contel	21, <del>44</del> 2 20,995	36.7 36.7	BellSouth	36,220	63.3	5,354 5,354
49	Austin	McCaw Cellular	20,995 26.422	60.5	GTE	17,249	39.5	5,354 5,221
50	Dayton	PacTel/CCI	14,243	43.5	Ameritech	18,537	56.5	5,086
	Average			49.8			50.2	_
	Weighted Average			_			_	5,253

Note: Numbers may not add due to rounding.

For purposes of this analysis we assume that the market is limited to current cellular providers.

Source: Derived from Northern Business Information estimates contained in Doesier: Wireless Communications, Cellular Service Operators, Northern Business Information: Exhibit 2-1 "Controlling Cellular Operators in the Top 50 MSAs," C. Craven, K. Neilson, A. Smith, 1993, p. 16.

# HHI FOR SEVEN STATES Based on Cellular Interexchange Subcribers

	Mari								
	AT&T MCI SPRINT		SPRINT	HHI					
	(1)	(2)	(3)	(4)					
(PERCENT)									
Kentucky [2]	80.9 %	6.7 %	6.2 %	6625					
Louisiana [3]	82.6	5.2	4.8	6885					
Florida	84.2	6.6	4.7	7160					
Tennesee	84.5	7.6	4.5	7218					
South Carolina	86.0	7.0	3.2	7451					
Georgia	86.3	7.0	4.5	7523					
Alabama	88.0	6.1	3.0	7795					

Note: Market shares are rounded.

- [1] The market shares of other cellular interexchange providers were not significant (greater than 1.0 percent of the total market) to include in calculating the HHI unless otherwise noted. These shares have an insignificant impact on the HHI.
- [2] LDDS/Americall and Metromedia's shares of 1.5% and 1.6% respectively have been included in the HHI.
- [3] LDDS and LDS's shares of 1.3% and 2.4% respectively have been included in the HHI.

Source: BellSouth documents on number of subscribers for cellular interexchange services by state, May 1994.

## EXHIBIT II

Declaration of Wayne D. Gantt Economic and Financial Advisor to BellSouth Corporation

#### Declaration of Wayne D. Gantt

- Contrary to public perception, economists agree on a 1. rather substantial body of economic thought. Most economists would, for example, identify price as one of the most important determinants of a market economy. The more clear the pricing mechanism, the more likely the economic outcome will be optimal, efficient, and correct. This is axiomatic in the economic discipline. In two measures outlined in the Federal Communications Commission's (FCC) recent amendment of the Commission's Rules to Establish New Personal Communications Services (PCS), the efficacy of price is called into question. By limiting participants in the open auction for PCS spectrum in two ways: 1) by a 20 percent cross-ownership attribution; and 2) by a further 10 percent population coverage overlap test, the Commission's rules negate the notion of an open and competitive auction. As price is the premier allocator of scarce resources, to restrict entry is to invite inefficiency and a suboptimal outcome.
- 2. Plainly stated, the 20 percent cross-ownership appears arbitrary. Why 20 percent? If equity were a consideration, a purely mathematical starting point would be 50 percent. The choice of 20 percent, or a one-fifth interest in a cellular operator, clearly calls into question the effective rate of return. If one begins with an eighty percent penalty, why would a rational actor bid in a constricted auction? Barring existing cellular licensee's from an open competitive auction (with no

restrictions) <u>limits</u> competition. The financial decision to participate in an open auction turns on the rate of risk and the hoped for rate of return, but the rule-bound limitations marginalize the prospects for a fair rate of return. Moreover, both the risk and the rate of return should be calculable. However, if the Commission retains the exclusion rules, the deployment of resources becomes riskier. It is significant that 12 parties petitioned for reconsideration of the cellular ownership attribution standard. Of the five recommendations, the first-raising the 20 percent level of permissible ownership in cellular licensees — seems the most reasonable. We agree with the Commission's and the Congress' stated goals of maximizing competition and allowing cellular entities to bring their expertise to PCS. We firmly believe that price and open, unlimited auctions (not restrictive entry) will maximize PCS competition.

3. Once again, the question of balance is raised when the Commission rules that cellular licensees at or exceeding 20 percent would be subjected to a 10 percent population coverage overlap test and if the Commission so determined the licensee would be <u>limited</u> to a single 10 MHz PCS license. This atomizes the market further. Paragraph 136, a decision paragraph, seems to have conflicting language. It states, "Our goal is to provide for entry into the PCS market for the maximum number of viable competitors." Yet the decision retains the 10 percent population overlap threshold, which will actually reduce the number of

viable competitors. Provisions for disallowing geographic concentration are not consistent with economies of scale. As with the 20 percent bright line attribution rule, the mathematical tilt clearly is unbalanced. A beginning point for the population coverage overlap should be nearer to the mid-point of 50 percent. We would still argue that for maximum efficiency and optimal outcome, the auctions should be conventional, open, unrestricted, and price-driven.

The economic consequences of an open and unfettered auction for PCS spectrum would: 1) allocate spectrum to the highest bidder; 2) raise a considerable sum of money for the U.S. Treasury; and 3) serve the intentions of the U.S. Congress. All of these goals are consistent with the public interest. Both the 20 percent attribution rules and the 10 percent population standard are restrictive to the market process. Auctions that are open and competitive create probabilities that can be managed. By narrowing the potential market, returns are likewise narrowed; rational actors are then less willing to enter the market. Markets include a powerful iterative process. A constant series of price recalibrations drives efficient and competitive markets like the one for PCS. Any constraints placed on effective actors reset the risk/reward calculation, thus increasing costs. By marginalizing the potential market, many would-be participants decline to participate.

We believe no limit should be placed on the auction of the PCS spectrum to any participant. The two barriers -- attribution rules and population standards -- are incongruent with sound financial and economic principles. Finally, we believe the thresholds of 20 percent for attribution and 10 percent for population overlap are unbalanced, and a more balanced spread for cellular participants should be considered.

I declare under penalty of perjury, that the foregoing is true and correct.

Wayne D. Gantt

Executed: Argust 24, 1994

### Certificate of Service

I, Mary Jane Adcock, hereby certify that on this 30th day of August, 1994, copies of the foregoing "BellSouth Comments on Further Reconsideration (Broadband Personal Communications Service)" were sent via first class United States mail, postage pre-paid, to the following:

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